CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

ORDER NO. 87-064

WASTE DISCHARGE REQUIREMENTS FOR:

DOW CHEMICAL USA
WESTERN DIVISION, PITTSBURG PLANT
PITTSBURG, CONTRA COSTA COUNTY

The California Regional Water Quality Control Board, San Francisco Bay Region, hereinafter called the Board, finds that:

1. Dow Chemical USA, Western Division (hereinafter called the discharger) filed a Report of Waste Discharge dated April 22, 1985, supplemented by a submittal dated May 3, 1985. The discharger manufactures chlorine, caustic, hydrogen, latex, agricultural chemicals, fumigants, fungicides, chlorinated solvents and other specialty chemicals.

2. The discharger owns and operates six Class I surface impoundments, two solid waste disposal units, and a number of treatment and process related surface impoundments located on the discharger's property. The discharger also owns seven historical disposal units. All the units are shown on Attachment A and are the subject of this Order. The exact boundaries of the historical disposal units are unknown.

3. The plant site is located in Pittsburg at the north end of Loveridge Road on shorelands south of New York Slough. Groundwater is generally encountered between 2 and 20 feet below ground surface. From groundsurface to about 25 feet, the site consists of silty and clayey soils with lenses and beds of relatively permeable fine grained silty sands (shallow zone). At about 30 feet below ground surface is a unit of fine sand (upper intermediate zone). Underlying this begining at approximately 40 to 50 feet below ground surface is a more permeable unit of sands (lower intermediate zone). Further below this begining at about 90 to 100 feet below ground surface is a unit of permeable gravelly sands (deep zone). These zones are occasionally separated by clayey soils in certain areas of the site and are interconnected in the northeastern portion of the site.

4. The groundwater gradient is generally northerly. However, the shallow zone gradient tends northeasterly in the area west of the former channel of Kirker Creek on the discharger's property. The discharger currently pumps groundwater from the deep zone via a well located approximately 1200 feet upgradient of the Class I surface impoundments. This water is treated through reverse osmosis to provide drinking water and process water for research. Intrusion of water from New York Slough at certain times of the year affects the groundwater salinity in the northern boundary of the discharger's property.

5. The discharger's Report of Waste Discharge describes the active disposal and process units and the wastes and materials handled at each unit. Additionally, the discharger submitted a report titled "Waste Management

Units Characteristics Report" dated June 2, 1986, which further describes the active disposal units along with the inactive disposal units at the site. These units are as follows:

a. Class I Surface Impoundments---The wastewater discharged to these six double lined units includes spent scrubber solutions from the manufacture of agricultural chemicals, loading sump rinsings from process areas, and research laboratory sink washings. The wastewater in the units is transferred from unit to unit to maintain adequate freeboard in each unit as evaporation occurs.

b. Central Landfill---This unit is about six acres and is currently (since about the past 10 years) being used for the disposal of various nonhazardous solid wastes consisting of paper, wood, and garden clippings. Inert wastes such as concrete rubble, plastics, coagulated latex polymers, carbon, and ceramics are also disposed to this unit. Calcium fluoride, currently a listed hazardous material in Title 22 Section 66680 of the California Administrative Code, was disposed of in this unit from 1974 to 1975. Earlier, between 1952 to 1969, the southern portion of this unit was used for miscellaneous disposal. The types of wastes disposed during that time is unknown but may vary from inert to hazardous wastes.

c. Northeastern Landfill---This unit is about 20 acres and has been used since the 1930's and is currently being used for the disposal of inert wastes such as concrete rubble, asphalt paving, dirt, and small amounts of iron contained in the concrete. In addition, brine mud, an unclassified waste, from the chlor-alkali process is disposed of here. This mud contains about 0.1% asbestos fibers, 2% chloride, and has a pH around 10.

d. Latex Coagulation Pits---These three unlined pits are used to treat dilute latex process water. The latex component is coagulated in one pit with ferric chloride, alum or some other agent, and settled while the treated aqueous phase is decanted, filtered and stored for fire water back-up in the Latex Fire Water Reservoir. The two other pits are used for further settling and drying of the coagulated latex. The coagulated latex is then excavated and landfilled at the Central Landfill.

e. Latex Fire Water Reservoir---This unlined pond contains the treated effluent from the Latex Coagulation Pits. The water from this pond is used for back-up process wash down and fire protection.

f. Fire Water Impounding Basin---This basin is doubled lined with synthetic rubber and has normally been kept empty to provide containment for fire water runoff, if necessary, from the chloropyridine process area. The basin has never received a firewater discharge but has received stormwater overflows from the chloropyridine process area. The water in the basin is returned as makeup water to the chloropyridine process. The inlet pipe to the pond was sealed in 1986 and the water in the basin was returned to process.

g. Brine Process Ponds---There are four ponds. Two are lined with Hypalon. The two lined ponds are used to store recycle brine solution (mainly sodium chloride). The two unlined ponds are used to store recycle brine solution plus brine clarifier bottoms. The brine solution from the four ponds is recycled to the chlor-alkali process. Other aqueous streams from various processes are also recycled back to production through these ponds.

h. Inactive Northwestern Landfill---This unit measures approximately 300 by 800 feet and was the location of a municipal landfill prior to being purchased by the discharger. The dates of disposal and the volume of waste at this unit is unknown. This was also the location of a rubber fabricating plant (H.K. Porter Co.) that operated between 1910 to about the 1940's. Wastes at this unit include rubber debris and other wastes associated with rubber fabricating. Tetrachloroethene and other chemicals were used at this plant.

i. Inactive Northcentral Landfill---This unit measures approximately 600 by 1,000 feet and was the location of a municipal landfill prior to being purchased by the discharger. The dates of disposal and the volume of waste at this unit is unknown. Wastes recently found in this unit include construction debris and iron slag. Presently, a "shock pond" is located on the western half of this area. The shock pond is constructed with a single synthetic liner with engineered fill. It was designed to provide backup capacity for water from the storm sewer that may contain high organic chemical concentrations or that had pH far outside the acceptable range for initial pH adjustments prior to final treatment in the NPDES neutralization system. This pond is used only during catastrophic spills which cannot be contained in the process units.

j. Inactive Research Chemical Disposal Trench(es)---The trench measured approximately 8 by 8 feet, and 8 to 10 feet deep and was used for the disposal of miscellaneous research chemicals, both inorganic and organic. The precise location of the trench is not known. The trench was covered with soil in 1970. Other trenches in this area may also have been used for the same purpose.

k. Inactive Hazardous Waste Landfill---This area is about 350 by 350 feet and was used for the disposal of hexachlorobenzene and other hazardous materials until the 1960's. The thickness of the wastes has been estimated to be 10 to 15 feet. Iron slag was also disposed of in this area.

l. Inactive Byproduct Disposal Trench---The trench measured approximately 8 by 200 feet and 8 to 10 feet deep and was used for the disposal of "still bottoms" containing hexachlorobenzene. This trench was covered with soil in 1970.

m. Inactive Iron Slag Disposal Areas---In addition to the iron slag contained in the Inactive North Central Landfill and Inactive Hazardous Waste Landfill, there are two other areas on the plant site in which iron slag was disposed. The iron slag in these areas is believed to be continuous with the slag within the inactive landfills. One area is immediately to the east of the Inactive

North Central Landfill. The other area is immediately to the west of the Inactive Hazardous Waste Landfill.

6. In 1986, contractors for the Environmental Protection Agency performed a RCRA (Resource Conservation and Recovery Act) facility assessment (RFA) for the discharger's plant site. The RFA was performed pursuant to the Hazardous Solid Waste Amendments (HSWA) to RCRA. This RFA included a visual site inspection on August 7, 1986. The RFA report dated September 18, 1986 identified various solid waste management units in need of further investigation. Many of these units are described in Finding 5. The following are additional units cited in the RFA report as having a potential for releases to groundwater:

   a. Storm Sewer System---The system receives rainwater runoff, cooling water blowdown, and some sulfate wastes from salt processing. Storm sewer waters are discharged through the discharger's NPDES E-001 outfall after neutralization. The system is clay pipe construction. Because of the age of certain parts of the system, its integrity is questionable. Therefore, this system poses a threat by releases to groundwater of untreated wastewater.

   b. Neutralization Basin---This basin is part of the neutralization system which treats the NPDES wastewater prior to ultimate discharge into New York Slough via the E-001 pond. Sodium hydroxide and hydrochloric acid are added to the wastewater in the basin to control pH. The wastewater consists of power plant blowdown, chlorine cell washings, cooling tower blowdowns from the chlor-alkali and Vikane operations, and sodium sulfate purge from the caustic plant.

   c. Rail Car Washing Area---This area consists of a building constructed over a rail spur where chlorine and hydrochloric acid are rinsed from rail cars. The building has concrete floors, concrete sumps, and air scrubbers. Water from the rail car washing is recycled into processing.

   d. Ethyl Property---This site was the location of a plant owned and operated by the Ethyl Corporation which manufactured tetraethyllead. Various halogenated organic chemicals were stored at this site during operation. The discharger reports that the Ethyl Corp. removed and decontaminated all equipment and structures on the site when it was shut down. The discharger collected surface soil samples which showed background concentrations for total lead (2 to 200 ppm). Samples for halogenated organic compounds were not taken.

   e. Old Drum Storage Area---This area is located outside in the research plant area on gravel covered soil. It was used as the storage area for drums of waste materials prior to disposal. The exact years of usage is unknown.

7. The HSWA requires the preparation of a RCRA facility investigation (RFI) plan to determine whether the units cited in the RFA report have released to the environment, and if so, to what extent.

8. The requirements of Order No. 71-40, adopted on June 24, 1971, govern the waste discharge to Ponds C and D of the units described in Finding

5.a., to the western third of the unit described in Finding 5.c., and to the units described in Findings 5.b., d., and g.

9. The units described in Findings 5.a., b., c., h., i., j., k., l., and m. are subject to the regulations contained in Title 23, Chapter 3, Subchapter 15 (Subchapter 15) of the California Administrative Code.

10. The Class I surface impoundments described in Finding 5.a. are subject to the requirements of the Toxic Pits Cleanup Act (TPCA) of 1984. These units are about 100 feet above the deep zone aquifer described in Finding 3. The uses of this aquifer are described in Finding 4. Therefore, these units are within one-half mile upgradient of a drinking water source. The TPCA [Section 25208.4(a) of the Health and Safety Code (HSC)] prohibits discharge to such units after June 30, 1988. Discharge includes storage of liquids in the units. The TPCA also prohibits discharge to Class I surface impoundments which do not meet specified double liner requirements [Section 25208.5(a) of the HSC] on or after January 1, 1989. The discharger's six impoundments are double lined but they do not meet specified double liner requirements.

11. The discharger filed an application for exemption dated December 30, 1985 from the one-half mile prohibition contained in the TPCA for two of the six Class I surface impoundments; specifically, Ponds E and F. With the application the discharger submitted a hydrogeological assessment report (HAR) to support the request for an exemption. A final determination on the application for exemption is expected after submittal of a response from the discharger to Board staff comments on the HAR.

12. The discharger is in the process of discontinuing use of the Class I surface impoundments. The discharger is considering closure of these units either via removal of all wastes, and liner and natural geologic materials contaminated by wastes (clean closure) or closure in place as a landfill.

13. The discharger intends to close the Fire Water Impounding Basin before the end of 1987. The discharger also intends to discontinue use and eventually close the Latex Coagulation Pits and the Latex Fire Water Reservoir sometime in 1988, and the Brine Process Ponds sometime in 1989.

14. The unit described in Finding 5.c., subsequent to any modifications required to comply with this Order, will meet the criteria contained in Subchapter 15 for classification of the unit as a Class II landfill. The classification of this unit may change depending on the results of the waste characterization required by this Order.

15. The classification, pursuant to Subchapter 15, of the units described in Findings 5.m. will depend on the results of the waste characterization required by this Order.

16. Groundwater monitoring wells installed to monitor the four northern Class I surface impoundments and the Central Landfill show waste constituents in the shallow and intermediate aquifer zone. The concentration of waste detected in these wells range from near detection

to thousands of parts per billion of such chemicals as tetrachloroethene, dichloroethene, benzene, chloroform, hexachlorobutadiene, pentachlorophenol, and carbon tetrachloride. Trace amounts (at or slightly above the detection limit) of tetrachloroethene have also been consistently detected in the samples from a deep zone well (CC-107C). Neither the exact source(s) nor the extent of the waste constituents has been identified. The discharger believes that much of the contamination is from the past indiscriminant disposal of waste to the Central Landfill.

17. The wastes currently disposed in the Central Landfill are classified as nonhazardous solid waste. Although calcium fluoride, currently a hazardous waste, was disposed to this unit, at the time of disposal, it was not defined as a hazardous waste. Additionally, because of the insoluble nature of calcium fluoride, designation of this unit as a Class I landfill is not warranted. Therefore, this unit is classified as a Class II landfill pursuant to Subchapter 15. Also, because of the nature of the waste constituents in the groundwater beneath this unit, it is necessary to close this unit to cease present and prevent future releases to groundwater from this unit.

18. Groundwater monitoring wells installed in the area of the three inactive landfills and the two inactive disposal trenches show synthetic organic compounds in the groundwater of the shallow aquifer. The most likely sources of these compounds are the inactive disposal units. The extent of the waste constituents has not been defined.

19. Because of the types and concentrations of organic compounds found in the soil and groundwater beneath the Inactive Northwestern Landfill and the Inactive Northcentral Landfill, these units are hereby classified as Class II landfill pursuant to Subchapter 15.

20. The nature of the wastes disposed in the Inactive Research Disposal Trench(es), the Inactive Hazardous Waste Landfill, and the Inactive Byproduct Disposal Trench classifies these units as Class I landfills pursuant to Subchapter 15.

21. The concentrations of synthetic organic compounds in the groundwater referenced in Findings 16 and 18, beneath Ponds A through D, and the units described in Findings 5.b., h., i., j., k., and l. exceed groundwater quality protection standards that would be set for those compounds. In accordance with Section 2551.a)3) of Subchapter 15, the discharger is thus in corrective action mode for groundwater monitoring for those units.

22. The discharger submitted a report titled "Corrective Action Program" dated March 25, 1987, which outlines the discharger's plan of action to define the source and extent of the waste constituents found in the groundwater and to remediate environmental problems resulting from those compounds.

23. Percolation from the Latex Coagulation Pits creates a groundwater mound in the shallow aquifer zone. Support for this is drawn from the groundwater level data in this area, and the presence of butadiene in the groundwater from monitoring well MK-404A close to the pits. Butadiene is a raw material used in the latex plant. Well MK-404A also

shows the presence of other organic compounds such as pentachlorophenol, phenol, and chloroform. The source of these compounds has not been identified.

24. Deep zone well CC-601C was installed to monitor the groundwater downgradient of the Northeastern Landfill. Groundwater samples from this well contain volatile organic compounds such as benzene and various other chlorinated organic solvents. The detected concentrations range from tens to hundreds of parts per billion. The shallow and intermediate wells next to this deep well have not shown any volatile organic compounds.

25. Shallow zone wells CC-117A and MK-116A are located near the northwest corner of Pond A. These two wells are not in locations to monitor any particular waste management unit. Groundwater samples from these wells contain organic compounds such as tetrachloroethene, pentachlorophenol, carbon tetrachloride, and chloroform. The reported concentrations range from near detection up to 150 parts per million of carbon tetrachloride. The source(s) of these compounds have not been identified. The discharger intends to investigate this matter together with the investigation for the Inactive Byproduct Disposal Trench required by this Order.

26. The discharger submitted a report titled "Draft II, Sampling Protocol" dated April 18, 1986, which describes the discharger's current sampling and analysis plan for groundwater monitoring.

27. The Board adopted a revised Water Quality Control Plan for the San Francisco Bay Basin (Basin Plan) on December 17, 1986. This Order implements the water quality objectives stated in the Basin Plan.

28. The beneficial uses of New York Slough in the vincinity of the site are:

    a. Contact and non-contact water recreation
    b. Fish migration and spawning
    c. Wildlife and estuarine habitat
    d. Preservation of rare and endangered species
    e. Industrial process supply
    f. Navigation
    g. Commercial and sport fishing

29. The potential beneficial uses of the groundwater underlying the site are:

    a. Municipal supply
    b. Industrial process water and service supply
    c. Agricultural supply

30. The action to revise waste discharge requirements for continued operation of existing waste management units and for closure of waste management units is exempt from the California Environmental Quality Act (Public Resources Section 2100 et. seq.) in accordance with Section 15301 of the California Administrative Code.

31. The Board notified the discharger and interested agencies and persons of its intent to prescribe waste discharge requirements for the discharge and has provided them with an opportunity for a public hearing and an opportunity to submit their written views and recommedations.

32. The Board, in a public hearing held on June 17, 1987, heard and considered all comments pertaining to the discharge.

IT IS HEREBY ORDERED, that the discharger and any other persons that own the land or operate these units shall meet the provisions contained in Division 7 of the California Water Code and regulations adopted thereunder and shall comply with the following:

A. Prohibition

The disposal of wastes shall not create a condition of pollution or nuisance as defined in Sections 13050 (l) and (m), respectively, of the California Water Code.

B. Specifications

1. The Class I Surface Impoundments described in Finding 5.a. shall comply with the following:

   a. Any waste removed from these units prior to or as part of closure shall be properly handled as hazardous waste.

   b. The units shall have facilities adequate to divert surface runoff from adjacent areas, to protect the boundaries of the units from erosion, to prevent conditions that would cause drainage or seepage from the units, and to protect the units from flooding by tidal or storm water. Adequate protection shall be protection from at least a probable maximum precipitation and from the highest tidal stage that may occur during a flood with a 100-year return period.

   c. A minimum freeboard of 2 feet shall be maintained at all times in each unit.

   d. Liquid hazardous wastes or hazardous wastes containing free liquids shall not be discharged [as defined in Section 25208.2(f) of the HSC] to the four northerly units (Ponds A, B, C and D) after June 30, 1988.

   e. The discharger shall operate Ponds E and F so as not to cause a statistically significant difference to exist between water quality at the compliance points and the following Water Quality Protection Standards. The compliance points are identified as monitoring wells CC-105B1, MK-106A, MK-106B2, and CC-104B1 in the attached self-monitoring program. The background water quality monitoring points are identified as CC-108A and MK-102B2.

Parameter	WQPS
pH	6.0 - 8.0
Specific Conductivity	6000 umhos/cm
Purgeable Organics	Nondetection
Base/Neutral and Acid Extractable Organics	Nondetection

f. The units shall be closed in accordance with Section 2580 of Subchapter 15.

2. The Central Landfill shall comply with the following:

a. Wastes disposed to this unit shall not be placed in a position where they can be carried from the unit into waters of the State.

b. This unit shall be closed as a Class II unit in accordance with Sections 2580 and 2581 of Subchapter 15.

c. A corrective action program in accordance with Section 2558 of Subchapter 15 shall be implemented for this unit.

3. The Northeastern Landfill shall comply with the following:

a. Wastes disposed of in this unit shall consist only of inert wastes as defined in Section 2524 of Subchapter 15 and brine mud as described in Finding 5.c. Other designated wastes or wastes defined as hazardous, or nonhazardous solid shall not be disposed of in this unit.

b. The wastes shall be confined to the disposal unit at all times and shall not be placed in a position where they can be carried from the unit into waters of the State.

c. The unit shall have facilities adequate to divert surface runoff from adjacent areas, to protect the boundaries of the unit from erosion, to prevent conditions that would cause drainage or seepage from the site, and to protect the site from flooding by tidal or storm water. Adequate protection shall be protection from at least a 1000-year 24-hour storm and from the highest tidal stage that may occur during a flood with a 100-year return period.

d. Internal drainage from this unit shall be confined within the unit.

e. The unit shall be located to comply with criteria and standards under Section 2532 of Subchapter 15. An exemption to this may be granted by the Board based on a demonstration submitted by the discharger pursuant to Sections 2510 (b) and (c) of Subchapter 15.

f. The unit shall have liner or liners according to the specifications and standards under Section 2542 and general construction standards under Section 2541 of Subchapter 15. An exemption to this may be granted by the Board based on a demonstration submitted by the discharger pursuant to Sections 2510 (b) and (c) of Subchapter 15.

g. The discharger shall assure that the foundation of the unit and the structures which control leachate, surface drainage, erosion and gas for this unit are maintained under conditions generated during the maximum credible earthquake.

h. The discharger shall operate the unit so as not to cause a statistically significant difference to exist between water quality at the compliance points and the following Water Quality Protection Standards. The compliance points are identified as monitoring wells CC-601A, and MK-601B1 in the self-monitoring program. The background water quality monitoring point is identified for the upper intermediate zone as MK-507B1.

Parameter	WQPS
pH	6.0 - 8.0
Specific Conductivity	40,000 umhos/cm

i. The discharger shall install any additional groundwater monitoring wells required to fulfill the terms of any Self-Monitoring Program issued to the discharger in order that the Board may evaluate compliance with the conditions of this Order.

4. The Latex Coagulation Pits, Latex Fire Water Reservoir, and Fire Water Impounding Basin shall comply with the following:

a. Wastes managed at these units shall not be placed in any position where they can be carried from the units into surface waters of the State.

b. A minimum of 2 feet of freeboard shall be maintained in each of the units at all times.

c. The units shall have facilities adequate to divert surface runoff from adjacent areas, to protect the boundaries of the site from erosion, to prevent conditions that would cause drainage or seepage from the site, and to protect the site from flooding by tidal or storm water. Adequate protection shall be protection from at least a 100-year 24-hour storm and from the highest tidal stage that may occur during a flood with a 100-year return period.

d. The materials managed at these units shall not adversely impact groundwater beneath the units.

5. The Brine Process Ponds shall comply with the following:

   a. Materials discharged to these units shall be confined to the units and shall not be placed in any position where they can be carried from the units into surface waters of the State.

   b. The units shall have facilites adequate to divert surface runoff from adjacent areas, to protect the boundaries of the site from erosion, to prevent conditions that would cause drainage or seepage from the site, and to protect the site from flooding by tidal or storm water. Adequate protection shall be protection from at least 1000-year 24-hour storm and from the highest tidal stage that may occur during a flood with a 100-year return period.

   c. Materials managed at these units shall not adversely impact groundwater beneath the units.

6. The Inactive Northwestern Landfill and the Inactive Northcentral Landfill shall comply with the following:

   a. The units shall be closed in accordance with Sections 2580 and 2581 of Subchapter 15.

   b. A corrective action program in accordance with Section 2558 of Subchapter 15 shall be implemented for these units.

7. The Inactive Research Chemical Disposal Trench(es), the Inactive Hazardous Waste Landfill, and the Inactive Byproduct Disposal Trench shall comply with the following:

   a. The units shall be closed in accordance with Section 2580 of Subchapter 15.

   b. A corrective action program in accordance with Section 2558 or Subchapter 15 shall be implemented for these units.

8. The Inactive Iron Slag Disposal Areas shall be closed in accordance with Sections 2580 and 2581 of Subchapter 15.

9. The material or wastes presently located or managed at the Storm Sewage System, the Neutralization Basin, the Rail Car Washing Area, the Ethyl Property, and the Old Drum Storage Area shall not adversely impact groundwater beneath the units.

C. Provisions

1. Class I Surface Impoundments

The discharger shall comply with Specification B.1.a., b., c., d.

and e. upon adoption of this Order. Compliance with Specification B.1.f. shall be in accordance with the following tasks and time schedule:

a. Submit a HAR in accordance with Section 25208.8 of the Health and Safety Code satisfactory to the Executive Officer.
REPORT DUE: September 1, 1987

b. Submit a report detailing the closure plans for Ponds A through D with a schedule for completing the closure activities. The details to be included in the report shall include at a minimum:

1) date of ceasing placement or disposal of any additional wastes into the impoundment, and

2) plan for removing or chemically/physically stabilizing the hazardous liquids in the units.

REPORT DUE: November 1, 1987

c. Commence work in accordance with the closure plan time schedule submitted for Task 1.b. as approved by the Executive Officer.

d. Achieve full compliance with Specification B.1.f. within 180 days from the date of cessation of placement or disposal of additional hazardous waste into the units.

2. Central Landfill

The discharger shall comply with Specification B.2.a. and c. upon adoption of this Order. Compliance with Specification B.2.b. shall be in accordance with the following tasks and time schedule:

a. Cease discharge of waste into the unit within 30 days from the date of adoption of this Order.

b. Determine the effects to the former channel of Kirker Creek of any seepage of waste constituents in groundwater to the channel from the area of the Central Landfill. If adverse impacts are determined, the report shall include a proposal and time schedule for interim remedial action to cease the discharge of waste constituents in groundwater to the former channel of Kirker Creek.
REPORT DUE: October 1, 1987

c. Implement the interim remedial action in accordance with the proposal and time schedule submitted for Task 2.b. as approved by the Executive Officer.

d. Submit a Report of Waste Discharge in accordance with Article 9 of Subchapter 15 for closure, and post closure monitoring of the unit. The closure measures shall be designed to prevent future releases to groundwater from this unit.
REPORT DUE: December 1, 1988

e. Submit a report describing the extent and rate of migration of waste constituents in the groundwater released from the unit and a proposal for corrective action. This proposal shall include a detailed discussion of at least three clean-up strategies and the estimated cost and consequences of each one. The alternatives must range from complete removal of all waste constituents to no action.
REPORT DUE: December 1, 1988

f. Achieve full compliance with Specification B.2.b. by a date to be established by the Board based on the information submitted pursuant to Provision C.2.d.

3. Northeastern Landfill

The discharger shall comply with Specification B.3.a.,b., c., d., h. and i. upon adoption of this Order. Compliance with Specification B.3.e., f. and g. shall be in accordance with the following tasks and time schedule:

a. Submit a proposal and time schedule to determine the waste classification pursuant to Article 2 of Subchapter 15 of the brine mud waste. This proposal shall be capable of determining any potential impacts to groundwater from the brine muds to the Northeastern Landfill specifically.
REPORT DUE: September 1, 1987

b. Commence work in accordance with the proposal and time schedule submitted for Task 3.a. as approved by the Executive Officer.

c. Submit a report of the result of the waste characterization.
REPORT DUE: In accordance with the time schedule approved by the Executive Officer.

d. Submit a Report of Waste Discharge in accordance with Article 9 of Subchapter 15 for reclassification of the unit, or a report demonstrating compliance with or a plan and time schedule for achieving compliance with Specification 3.d., e. and f.
REPORT DUE: December 1, 1987

e. Achieve full compliance with Specification B.3.d., e. and f. by a date to be established by the Board based on information submitted pursuant to Provision C.3.d.

4. Latex Coagulation Pits, Latex Fire Water Reservoir, and Fire Water Impounding Basin

The discharger shall comply with Specification B.4.a., b. and c. upon adoption of this Order. Compliance with Specification B.4.d. shall be in accordance with the following tasks and time schedule:

a. Partially close the Fire Water Impounding Basin via removal of any residual water, sludge, and liner and any highly contaminated natural geologic materials. Chemically analyze the waste and material to determine appropriate disposal measures and to document the degree of completeness of the interim closure measures.
REPORT DUE: October 1, 1987

b. Submit closure plans and time schedules for the Latex Coagulation Pits and Latex Fire Water Reservoir.
REPORT DUE: March 1, 1988

c. Commence work in accordance with the plans and time schedules submitted for Task 4.b. as approved by the Executive Officer.

d. Submit a report which describes the extent of the waste constituents in the soil and groundwater in the area of these units and submit a proposal for corrective action. The proposal shall include a detailed discussion of at least three clean-up strategies and the estimated cost and consequences of each one. The alternatives must range from complete removal of all waste constituents to no action.
REPORT DUE: December 1, 1988

e. Achieve full compliance with Specification B.4.d. by a date to be established by the Board based on the information submitted pursuant to Provision C.4.d.

5. Brine Process Ponds

The discharger shall comply with Specification B.5.a. and b. upon adoption of this Order. Compliance with Specification B.5.c. shall be in accordance with the following tasks and time schedule:

a. Submit a closure plan for the Brine Process Ponds. This plan must also address the hydrogeology in the area and the extent of impact on groundwater from the materials handled at these units.
REPORT DUE: July 1, 1988

b. If it is determined based on the information generated for Task 5.a. that the ponds have adversely impacted groundwater, the discharger shall submit a proposal for corrective action. The proposal shall include a detailed discussion of at least three clean-up strategies and the estimated cost and consequences of each one. The alternatives must range from complete removal of all waste constituents to no action.
REPORT DUE: 9 months after the determination.

c. Achieve full compliance with Specification B.5.c. by a date established by the Board based on the information submitted pursuant to Provision C.5.b.

6. Inactive Northwestern Landfill, Inactive Northcentral Landfill

The discharger shall comply with Specification B.6.b. upon adoption of this Order. Compliance with Specification B.6.a. shall be in accordance with the following tasks and time schedule:

a. Determine the effects on New York Slough of any seepage of waste constituents in groundwater to the slough from the area of the landfills. If adverse impacts are determined, submit a proposal and time schedule for interim remedial action to cease the discharge of waste constituents in groundwater to New York Slough.
REPORT DUE: October 1, 1987

b. Implement the interim remedial action in accordance with the proposal and time schedule submitted for Task 6.a. as approved by the Executive Officer.

c. Submit a Report of Waste Discharge in accordance with Article 9 of Subchapter 15 for closure, and post closure monitoring of each landfill. The closure measures should be designed to prevent future releases to groundwater from these units.
REPORT DUE: December 1, 1988

d. Submit a report describing the source(s), extent and rate of migration of waste constituents underlying the landfills and a proposal for corrective action. This proposal shall include a detailed discussion of at least three clean-up strategies and the estimated cost and consequences of each one. The alternatives must range from complete removal of all waste constituents to no action.
REPORT DUE: December 1, 1988

e. Achieve full compliance with Specification B.6.a. by a date to be established by the Board based on the information submitted pursuant to Provision C.6.c.

7. Inactive Research Chemical Disposal Trench(es), Inactive Hazardous Waste Landfill, and Inactive Byproduct Disposal Trench

The discharger shall comply with Specification B.7.b. upon adoption of this Order. Compliance with Specification B.7.a. shall be in accordance with the following tasks and time schedule:

a. Determine the effects to the former channel of Kirker Creek of any seepage of waste constituents in groundwater to the channel from the area of these units. If adverse impacts are determined, the report shall include a proposal and time schedule for interim remedial action to cease the discharge of waste constituents in groundwater to the former channel of Kirker Creek.
REPORT DUE: October 1, 1987

b. Implement the interim remedial action in accordance with the proposal and time schedule submitted for Task 7.a. as approved by the Executive Officer.

c. Submit an interim report describing the extent and rate of migration of the waste constituents found in the groundwater downgradient of these units.
REPORT DUE: February 15, 1988

d. Submit a Report of Waste Discharge in accordance with Article 9 of Subchapter 15 for closure and post closure monitoring of these units. The closure measures should be designed to prevent future releases to groundwater from these units.
REPORT DUE: December 1, 1988

e. Submit report describing the source(s), extent and rate of migration of the waste constituents found in the groundwater in the area of these units and a proposal for corrective action. This proposal shall include a detailed discussion of at least three clean-up strategies and the estimated cost and consequences of each one. The alternatives must range from complete removal of all waste constituents to no action.
REPORT DUE: December 1, 1988

f. Full compliance with Specification B.7. by a date to be established by the Board based on the information submitted pursuant to Provision C.7.d.

8. Inactive Iron Slag Disposal Areas

The discharger shall comply with Specification B.8. in accordance with the following tasks and time schedule:

a. Determine the nature of the wastes disposed to these units concerning its potential to adversely impact groundwater. This should include at a minimum a determination of the total and soluble metals concentrations of the iron slag.
REPORT DUE: September 15, 1987

b. If it is determined that there is potential for adverse impacts to groundwater, the discharger shall

1) determine whether there are existing releases to groundwater from the units; and

2) submit a Report of Waste Discharge in accordance with Article 9 of Subchapter 15 for closure and post closure monitoring of the units. The closure measures shall be designed to prevent releases to groundwater from these units.

REPORT DUE: December 1, 1988

c. Achieve full compliance with Specification B.8. by a date to be established by the Board based on the information submitted pursuant to Provision 8.b.2).

9. Storm Sewer System, Neutralization Basin, and Rail Car Washing Area

The discharger shall comply with Specification B.9. for the Storm Sewer System, the Neutralization Basin, and the Rail Car Washing Area in accordance with the following tasks and time schedule:

a. For the Rail Car Washing Area, verify that only rail cars receiving hydrochloric acid and chlorine are washed there, and that no other chemicals, such as organic compounds, could be expected as constituents of washwater in this unit.
REPORT DUE: August 1, 1987

b. Submit a proposal and time schedule to determine whether there are any leakages from the units of waste constituents to groundwater. This proposal shall be submitted as part of the facility wide investigation proposal required by Provision C.12. of this Order.
REPORT DUE: November 30, 1987

c. Commence work in accordance with the proposal and time schedule submitted for Task 9.b. as approved by the Executive Officer. Submit a report of the results of the investigation.
REPORT DUE: In accordance with the time schedule approved by the Executive Officer.

d. If it is determined based on the information generated for Task 9.c. that waste constituents are being released to groundwater from any of these units, the discharger shall define the extent of the waste constituents in the soil and groundwater and submit a proposal for corrective action. The proposal shall include a detailed discussion of at least three clean-up strategies and the estimated cost and consequencies of each one. The alternatives must range from removal of all waste constituents to no action. Additionally, the discharger shall submit plans to prevent future releases from the unit(s).
REPORT DUE: 9 months after the determination.

e. Achieve full compliance with Specification B.9. for the Storm Sewer System, the Neutralization Basin, and the Rail Car Washing Area by a date to be established by the Board based on the information submitted pursuant to Provision C.9.d.

10. Ethyl Property

The discharger shall comply with Specification B.9. for the Ethyl Property in accordance with the following tasks and time schedule:

a. Submit a proposal and time schedule to 1) determine whether the soils or groundwater in this area are contaminated by chlorinated organics or other waste constituents, and 2) define the extent

and rate of migration of the contaminants if they are found in this area. This proposal shall be submitted as part of the facility wide investigation proposal required by Provision C.12. of this Order.
REPORT DUE: November 30, 1987

b. Commence work in accordance with the proposal and time schedule submitted for Task 10.a. as approved by the Executive Officer. Submit a report of the results of the investigation.
REPORT DUE: In accordance with the time schedule approved by the Executive Officer

c. If it is determined based on the information generated for Task 10.b. that waste constituents are in the soil or are being released to groundwater from this area, the discharger shall submit a proposal for corrective action. The proposal shall include a detailed discussion of at least three clean-up strategies and the estimated cost and consequences of each one. The alternatives must range from complete removal of all waste constituents to no action.
REPORT DUE: 90 days after the report date specified under Task 10.b.

d. Achieve full compliance with Specific B.9. for the Ethyl Property by a date to be established by the Board based on the information submitted pursuant to Provision C.10.c.

11. Old Drum Storage Area

The discharger shall comply with Specification B.9. for the Old Drum Storage Area in accordance with the following tasks and time schedule:

a. Determine the location of the Old Drum Storage Area and verify that no releases to soils or to groundwater occured from this area. If it is determined that releases have occured, the discharger shall submit a proposal and time schedule to define the extent of the waste constituents in the soil and groundwater. This proposal shall be submitted as part of the facility wide investigation proposal required by Provision C.12. of this Order.
REPORT DUE: November 30, 1987

b. Commence work in accordance with the proposal and time schedule submitted for Task 11.b. as approved by the Executive Officer and

1) submit a report of the results of the investigation.
REPORT DUE: In accordance with the time schedule approved by the Executive Officer.

2) submit a proposal for corrective action. The proposal shall include a detailed discussion of at least three clean-up strategies and the estimated cost and consequencies of each one. The alternatives must range from complete removal of

all waste constituents to no action.
REPORT DUE: 90 days after the report date specified under Task 11.c.1).

d. Achieve full compliance with Specification B.9. for the Old Drum Storage Area by a date to be established by the Board based on the information submitted pursuant to Provision C.11.c.2).

12. The discharger shall submit by November 30, 1987, to the Regional Board, a proposal for an investigation which addresses existing and potential releases of waste constituents to groundwater from the units identified in Findings 5 and 6. The intent of the scope of this proposal shall be to ensure compliance with Provisions 2.d., 2.e., 4.d., 5.b, 6.c., 6.d., 7.d., 7.e., 8.b., 9.d., 10.c., and 11.c. The proposal shall be prepared to satisfy the requirements for the groundwater and surface water portions an RFI (RCRA facility investigation) plan.

13. Reports pursuant to compliance with the prohibitions, specifications, or provisions of this Order shall be prepared under the supervision of a registered engineer or certified engineering geologist.

14. The discharger shall remove and relocate any wastes which are discharged at this site in violation of these requirements.

15. The discharger shall file with this Board a report of any material change or proposed change in the character, location, or quantity of this waste discharge. For the purpose of these requirements, this includes any proposed change in the boundaries, contours, or ownership of the disposal areas.

16. The discharger shall maintain a copy of this Order at the site so as to be available at all times to site operating personnel.

17. The Board considers the property owner and site operator to have a continuing responsibility for correcting any problems within their reasonable control which arise in the future as a result of this waste discharge or water applied to this property during subsequent use of the land for other purposes.

18. The discharger shall comply with the attached self-monitoring program as adopted by the Board and as may be amended by the Executive Officer. Methods of sampling and chemical analyses shall be in accordance with an approved sampling and analysis plan.

19. The discharger shall allow the Board:

a. entry upon premises on which wastes are located or in which any required records are kept;

b. access to copy any records required to be kept under terms and conditions of this Order;

c. inspection of monitoring equipment or records; and

d. sampling of any discharge.

20. These requirements do not authorize commission of any act causing injury to the property of another or of the public, do not convey any property rights, do not remove liability under federal, state, or local laws, and do not authorized the discharge of waste withour appropriate federal, state, or local permits, authorizations, or determinations.

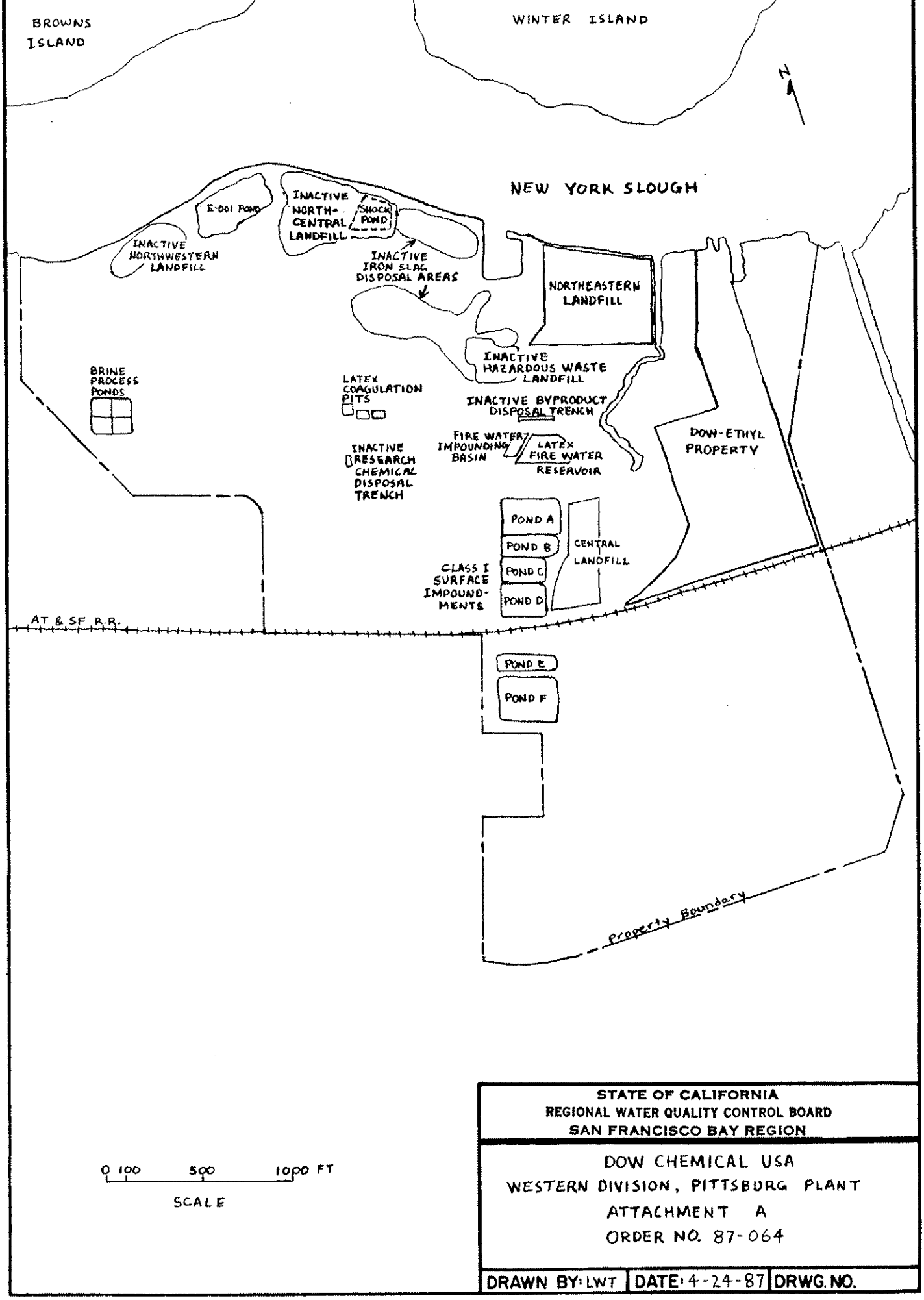
21. This Order supercedes Order No. 71-40. Order No. 71-40 is hereby rescinded.

I, Roger B. James, Executive Officer, do hereby certify the foregoing is a full, true and correct copy of an Order adopted by the California Regional Water Quality Control Board, San Francisco Bay Region, on June 17, 1987.

ROGER B. JAMES
Executive Officer

Attachments:

Attachment A - Site Map



STATE OF CALIFORNIA
REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

DOW CHEMICAL USA
WESTERN DIVISION, PITTSBURG PLANT
ATTACHMENT A
ORDER NO. 87-064

DRAWN BY: LWT	DATE: 4-24-87	DRWG. NO.

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

SELF-MONITORING PROGRAM

FOR

DOW CHEMICAL USA
WESTERN DIVISION, PITTSBURG PLANT
NORTH END OF LOVERIDGE ROAD
PITTSBURG, CONTRA COSTA COUNTY

PART A

A. GENERAL

Reporting responsibilities of dischargers are specified in Sections 13225(a), 13267(b), 13383, and 13387(b) of the California Water Code and this Regional Board's Resolution No. 73-16. This Self-Monitoring Program is issued in accordance with Provision C.17. of Regional Board Order No. 87-064.

The principal purposes of a self-monitoring program by a discharger are: (1) to document compliance with Waste Discharge Requirements and prohibitions established by the Board, (2) to facilitate self-policing by the discharger in the prevention and abatement of pollution arising from waste discharge, (3) to develop or assist in the development of effluent standards of performance, pretreatment and toxicity standards, and other standards, and (4) to prepare water and wastewater quality inventories.

B. SAMPLING AND ANALYTICAL METHODS

Sample collection, storage, and analyses shall be performed according to the most recent version of "Test Methods for Evaluating Solid Waste" (EPA/SW-846), "Methods for Chemical Analysis of Water and Waste" (EPA-600/4-79-020), "Methods for Organic Chemical Analysis of Municipal and Industrial Wastewater" (EPA-600/4-82-057), and/or "Standard Methods for the Examination of Water and Wastewater."

Water and waste analyses shall be performed by a laboratory approved for these analyses by the State Department of Health Services. The director of the laboratory whose name appears on the certification shall supervise all analytical work in his/her laboratory and shall sign all reports of such work submitted to the Regional Board.

All monitoring instruments and equipment shall be properly calibrated and maintained to ensure accuracy of measurements.

C. DEFINITION OF TERMS

1. A grab sample is a discrete sample collected at any time.

2. Receiving waters(s) refers to any water which actually or potentially receives surface or groundwaters which pass over, through, or under waste materials or contaminated soils. In this case the groundwater beneath and adjacent to the units, the surface runoff from the units, the former channel of Kirker Creek, and New York Slough are considered the receiving waters.

3. Standard observations refer to:

   a. Receiving Waters

      1) Discoloration and turbidity: description of color, source, and size of affected area.

      2) Evidence of odors, presence or absence, characterization, source, and distance of travel from source.

      3) Evidence of beneficial use: presence of water associated wildlife.

      4) Flow rate.

      5) Weather conditions: wind direction and estimated velocity, total precipitation during the previous five days and on the day of observation.

   b. Perimeter of the waste management unit.

      1) Evidence of liquid leaving or entering the waste management unit, estimated size of affected area and flow rate (show affected area on a map).

      2) Evidence of odors, presence or absence, characterization, source, and distance of travel from source.

      3) Evidence of erosion and/or daylighted waste.

   c. The waste management unit.

      1) Evidence of ponded water at any point on the solid waste management facility.

      2) Evidence of odors, presence or absence, characterization, source, and distance of travel from source.

      3) Evidence of erosion and/or daylighted refuse.

4. Standard analysis and measurements refer to:

   a. pH
   b. Specific Conductance

c. Temperature
d. Total Phenols
e. Chloride
f. Purgeable Organics (EPA Method 624)
g. Base/Neutral and Acid Extractable Organics (EPA Method 625)
h. Groundwater elevation in feet (±0.01 ft.) above Mean Sea Level.

D. SCHEDULE OF SAMPLING, ANALYSIS, AND OBSERVATIONS

The discharger is required to perform sampling, analysis, and observations according to the schedule specified in Part B, and the requirements of Article 5 of Subchapter 15.

E. RECORDS TO BE MAINTAINED

All records shall be maintained by the discharger, and shall be retained until closure of the facility. This period of retention shall be automatically extended during the course of any unresolved enforcement action regarding this facility or as requested by the Regional Board. Such records shall show the following for each sample:

1. Identity of sample and sample station number.

2. Date and time of sampling.

3. Date and time that analyses are started and completed, and name of the personnel performing the analyses.

4. Complete procedure used, including method of preserving the sample, and the identity and volumes of reagents used. A reference to a specific section of a reference required in Part A Section B is satisfactory.

5. Calculation of results.

6. Results of analyses, and detection limits for each analysis.

7. Chain of custody forms for each sample.

F. REPORTS TO BE FILED WITH THE REGIONAL BOARD

1. Written self-monitoring reports shall be filed each calendar quarter by the first day of the third month following the quarter. The reports shall contain:

   a. Letter of Transmittal--A letter transmitting the essential points in each self-monitoring report shall accompany each report. Such a letter shall include a discussion of any significant findings and requirement violations found during the past quarter and actions taken or planned for correcting the violations. If the discharger has previously submitted a detailed time schedule for correcting requirement violations, a

reference to the correspondence transmitting such schedule will be satisfactory. If no violations have occurred in the last quarter this shall be stated in the letter of transmittal. Monitoring reports and the letter transmitting reports shall be signed by a principal executive officer at the level of vice president or his duly authorized representitive if such representitive is responsible for the overall operation of the facility from which the discharge originates. The letter shall contain a statement by the official, under penalty of perjury, that to the best of the signer's knowledge the report is true, complete, and correct.

b. Compliance evaluation summary of the chemical data obtained for that quarter. This summary shall contain:

   1) A table of initial background concentrations for each sampling station.

   2) The sample mean and the sample variance for all sample sets taken from all compliance points, and shall determine if the difference between the mean of each sample set and the Water Quality Protection Standard is significant at the 0.05 level using Cochran's Approximation to the Behrens-Fisher Student's t-test described in Appendix II of Subchapter 15. The discharger may propose an alternative statistical procedure to be used in making this determination pursuant Section 2555(h)(3) of Subchapter 15. If a statistically significant difference is found this shall be reported as a suspected requirement violation in the letter of transmittal.

   3) A graphic description of the velocity and direction of groundwater flow under/around the waste management units, based upon the past and present water level elevations and pertinent visual observations.

c. A summary of the status of the Corrective Action work performed during that quarter. This shall be a brief and concise summary of the work initiated and completed 1) as interim corrective action measures, and 2) to define the extent and rate of migration of waste constituents in the soil and groundwater at the site.

d. A map or aerial photograph showing observation and monitoring station locations.

e. A list of the standard observations made.

f. All chemical analytical data gathered to date. This shall also include all the values from each replicate measurement, the laboratory achieved detection limit for each parameter, and the date and time of sampling and analysis of the sample.

g. A list of the analytical methods used as specified by the laboratory performing the analysis.

h. A table of groundwater level measurements. This shall include the measured depths to groundwater, and the groundwater elevation relative to mean sea level.

i. Field logs for each groundwater well sampled. The information contained in these logs should include well number, date, depth to groundwater, method of purging, total volume of water purged, method of disposal of purged water, time of purging, time of sampling, sample collection device, observations of the quality of the purge water and sample water (color, turbidity, odors, immisible phases, etc.), and any problems encountered during sampling.

j. Quality assurence data. This shall include results from blank, spiked, and duplicate samples.

2. By March 1 of each year the discharger shall submit an annual report to the Regional Board covering the previous calendar year. This report shall contain:

a. Tabular and graphical summaries of the monitoring data obtained during the previous year.

b. A comprehensive discussion of the compliance record, and the corrective actions taken or planned which may be needed to bring the discharger into full compliance with the Waste Discharge Requirements.

c. A written summary of the groundwater analyses indicating any change in the quality of the groundwater.

PART B

I. DESCRIPTION OF OBSERVATION STATIONS AND SCHEDULE OF OBSERVATIONS

A. Waste Monitoring

Record the pH and the volume of each load of brine mud waste disposed in the Northeastern Landfill. This information shall be reported on the quarterly reports when necessary.

B. On-site Observations

Station	Description	Observations	Frequency
V-1 thru V-'n'	Located on the waste disposal area as delineated by a 500 foot grid network.	Standard observations for the waste management unit.	Weekly
P-1 thru P-'n' (perimeter)	Located at equidistant intervals not exceeding 500 feet around the perimeter of the disposal area.	Standard observations for the perimeter.	Weekly

A map showing visual and perimeter compliance points (V and P stations) shall be submitted by the discharger in the quarterly monitoring report.

C. Seepage Monitoring

Station	Description	Observation & Analysis	Frequency
S-1 thru S-'n' (seepage)	At any point(s) at which seepage is found occurring from any unit.	Standard observations for the perimeter, and a grab sample for standard analysis.	Daily until remedial action is taken for the seepage and the seepage ceases.

Station	Description	Observation & Analysis	Frequency
CU-1 (receiving waters, upstream)	Located in the sloughs and drainage ditches upstream of the seepage.	Standard observation for receiving waters and a grab sample for standard analysis.	Daily, during a seepage event.
CD-1 thru CD-'n' (receiving waters downstream)	Located in the sloughs and drainage ditches 200 feet downstream of the seepage.	Same as for receiving waters upstream.	Daily during a seepage event.

D. Groundwater Monitoring

Station	Description	Observation & Analysis	Frequency
At all monitoring wells on the discharger's plant site except CC-101B2	Located as shown on Drawing No. 2 of the report titled "Corrective Action Program, Dow Chemical USA", dated March 25, 1987.	Standard analysis	Once per quarter.

5. Leachate Monitoring

Station	Description	Analysis	Frequency
L-1 thru L-7	Leachate control facilities for the Class I surface impoundments	Volume removed and returned to the unit.	At time of removal (report quarterly).
L-1 thru L-7	"	A grab sample for standard analysis.	Once, for each station.

II. CONTINGENCY REPORTING

A. A report shall be made by telephone of any seepage from the disposal area immediately after it is discovered. A written report shall be filed with this Board within five days. This report shall contain the following information: 1) a map showing the location(s) of discharge, 2) approximate flow rate, 3) nature of effects; i.e. all pertinent observations and analyses, and 4) corrective measures underway or proposed.

B. The following contingency reporting requirements shall apply to the Northeastern Landfill and Ponds E and F of the Class I surface impoundments only:

1. A report shall be made in writing to the Regional Board within seven days if a statistically significant difference is found between a self-monitoring sample set and a WQPS. Notification shall indicate what WQPS(s) have been exceeded. The discharger shall immediately resample at the compliance point(s) where this difference has been found and analyze another sample set of at least four portions split in the laboratory from the source sample.

2. If resampling and analysis confirms the earlier finding of a statistically significant difference between self-monitoring results and WQPS(s) the discharger must submit to the Regional Board within 90 days an amended Report of Waste Discharge for establishment of a verification monitoring program meeting the requirements of Section 2557 of Subchapter 15. This submittal shall include the information required in Section 2556(b)(2) of Subchapter 15.

3. The discharger must notify the Regional Board within seven days if the verification monitoring program finds a statistically significant difference between samples from the verification monitoring program point of compliance and the WQPS(s).

4. If such a difference or differences are found by the verification monitoring program it will be concluded that the landfill is out of compliance with this Order. In this event the discharger shall submit within 180 days an amended Report of Waste Discharge requesting authorization to establish a corrective action program meeting the requirements of Section 2558 of Subchapter 15. This submittal shall include the information required in Section 2557(g)(3) of Subchapter 15.

III. CONTINGENCY MONITORING

As part of the definition of the extent of waste constituents in the groundwater for any unit as required by Order No. 87-064, the discharger shall determine the concentration of all compounds listed in Appendix III of Subchapter 15.

I, Roger B. James, Executive Officer, hereby certify that the foregoing Self-Monitoring Program:

1. Has been developed in accordance with the procedures set forth in this Regional Board's Resolution No. 73-16 in order to obtain data and document compliance with waste discharge requirements established in this Board's Order No. 87-064.

2. Is effective on the date shown below.

3. May be reviewed or modified at any time subsequent to the effective date, upon written notice from the Executive Officer, or request from the discharger.

Roger B. James

ROGER B. JAMES
Executive Officer

June 18, 1987
DATE ORDERED